



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,555	03/22/2001	David B. Squires	X-857 US	6451

24309 7590 08/25/2003

XILINX, INC  
ATTN: LEGAL DEPARTMENT  
2100 LOGIC DR  
SAN JOSE, CA 95124

EXAMINER

HUYNH, KIM NGOC

ART UNIT	PAPER NUMBER
----------	--------------

2182

DATE MAILED: 08/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/815,555

Applicant(s)

SQUIRES, DAVID B.

Examiner

Kim Huynh

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4, 5-7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Akao (US 5,307,464).

Claims 1 and 6, Akao discloses a microcontroller and system for allowing the user to select the peripheral devices (Figs. 1-2 and 10) having a bus, processor core 2, configurable peripheral devices 3-5, wherein the peripheral are logic external to the CPU such as interface circuits, timers, counters, and serial input/output control circuits.

Claim 4, Akao discloses the peripheral and bus are implemented on a FPGA (see Figs. 15-17 and 20).

Claims 2, 5, and 9, Akao discloses the configurable peripheral devices (peripheral functions) can be of counter, timer, serial communication (UART), ROM, RAM.

3. Claims 1, 4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Basset (US 5,812,867).

Claim 1, Basset discloses an integrated circuit having a bus connecting between a processor core 1 and a configurable peripheral device 3.

Claim 4, Basset discloses the configurable peripheral device and bus are implemented on a FPGA (see Fig. 7).

Claim 6, Basset discloses a system allowing a user to select peripheral devices in a programmable logic device (col. 6, ll. 50-67) having menu system (choice of options, col. 6, ll. 65-67) allowing the user to select one of the plurality of peripheral devices and an integrated circuit as recited in claim 1. Please note Basset discloses the integrated circuit having more than one peripheral device 3 (abstract).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-3, 5, 7-8, and 9 are rejected under 35 U.S.C. 103(a) as being obvious over Basset in view of Mattheis et al. (US 6,085,337), Davidson et al. (US 5,428,748) or applicant's admission (page 4, ll. 4-10).

Claims 2, 5, 7, and 9, Basset does not specify the type of peripheral devices. however, Mattheis discloses that peripheral such as UART, memory, watchdog timer are typical in microcontroller depending on the product containing in the microcontroller (background, col. 1, ll. 10-18). Dvavidson discloses peripheral devices such as memory, communication interface are typical to carry out the dital dat processing function. This is in line with applicant admission that peripheral such as UART, flash

Art Unit: 2182

memory controller, interface devices are typical peripheral devices and is not significant. Therefore, it would have been obvious to one having ordinary skill in the art to select any type of peripheral devices in order to enable the configuration of the desired peripherals selected depending on the user's choice and application of the particular microcontroller.

As for claims 3 and 8, please note UART with fixed baud rate is of conventional construction such as type NSC 858 chip manufactured by National Semiconductor Corporation or other conventional UART such as Intel 8251 or 8252. It would have been obvious to one having ordinary skill in the art to utilize any of the conventionally available UART chip in order to simplify the design of the microcontroller depending on the type of data transmission required.

6. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being obvious over Akao. Akao does not disclose the UART is of fixed baud rate. However, it would have been obvious to one having ordinary skill in the art to implement the UART of any rate depending on the user's application of the microprocessor to carry out the transmitting of data.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

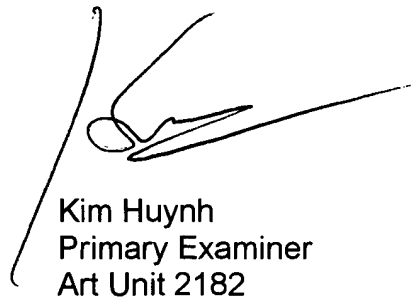
Gray (US 4,748,654) and Hicks (US 4,761,763) disclose conventional available UART such as NSC 858 and Intel 8521 and 8253.

Art Unit: 2182

Nilsson et al. (US 6,189,052), Bass et al. (US 6,029,155), and Barnett (US 6,145,020) disclose various configurable peripheral management systems.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (703) 308-1678.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Kim Huynh  
Primary Examiner  
Art Unit 2182

KH  
July 31, 2003